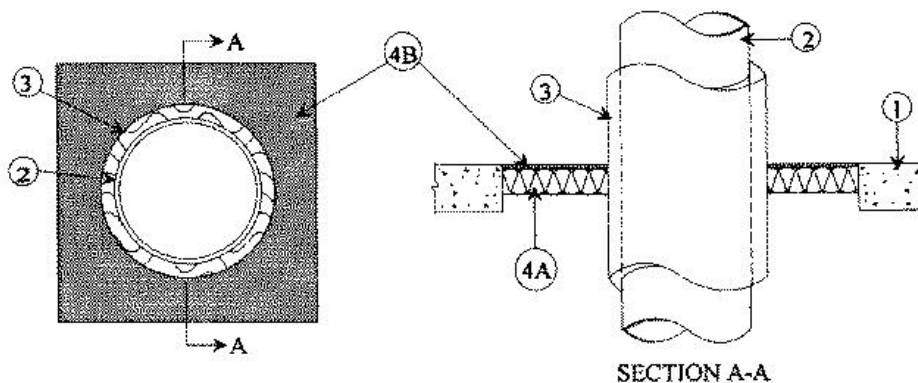


F Rating — 2 Hr  
 T Rating — 1 Hr  
 L Rating at Ambient — Less Than 1 CFM/sq ft  
 L Rating at 400 F — 3 CFM/sq ft  
 W Rating — Class 1 (See Item 3A)



1. **Floor or Wall Assembly** — Min 4-1/2 in. thick reinforced normal weight (150 pcf) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks\***. Max area of opening is 576 sq in. with max dimension of 24 in. See **Concrete Blocks (CAZT)** category in the Fire Resistance Directory for names of manufacturers.

2. **Steel Pipe** — Nom 16 in. diam (or smaller) Schedule 30 (or heavier) steel pipe. One pipe to be installed either concentrically or eccentrically within the firestop system. Pipe to be rigidly supported on both sides of floor or wall assembly.

3. **Pipe Covering\*** — Nom 1 or 1-1/2 in. thick hollow cylindrical heavy density (min 7.0 pcf) mineral fiber units with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See **Pipe and Equipment Covering — Materials (BRGU)** category in the Building Materials Directory for names of manufacturers. Any pipe covering meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

3A. **PVC Jacket+** — (Optional, Not Shown) - An additional PVC jacket, supplied in sheet form, shall be tightly wrapped around the all service jacket on the pipe covering with the longitudinal seam continuously sealed using the adhesive supplied with the jacket. The jacket is to be nom 48 in. (1.22 m) wide by nom 20 or 30 mil (0.5 or 0.8 mm) thick. The jacket shall extend downward into and/or through the opening from a point 36 to 40 in. (0.91 to 1.02 m) above the top surface of the floor assembly. **The PVC jacket must be used for the W Rating to apply. The W Rating applies only with floor assemblies.**

See **Plastics (QMFZ2)** category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component plastic material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

4. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — Min 3-3/4 in. thickness of min 4.5 pcf mineral wool batt insulation tightly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material\*** — **Caulk** — Min 3/8 in. thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall.

**RECTORSEAL** — [Metacaulk 835+](#)

+Bearing the UL Recognized Component Mark

\*,+ Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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